

RULE 109

Recordkeeping For Volatile Organic Compound Emissions

(a) **Applicability**

- (1) The provisions of this rule shall apply to an owner or operator of a stationary source within the District conducting operations, which include the use of adhesives, coatings, solvents, and/or graphic arts materials, when records are required to determine a District rule's applicability or source's exemption from a rule, rule compliance, or specifically as a Permit to Operate or Permit to Construct condition.
- (2) District rules requiring recordkeeping as outlined by Rule 109 include, but are not limited to, the following:
 - 1104 - Wood Flat Stock Coating Operations,
 - 1106 - Marine Coating Operations,
 - 1107 - Coating of Metal Parts and Products,
 - 1122 - Solvent Cleaners (Degreasers),
 - 1124 - Aerospace Assembly and Component Coating Operations,
 - 1125 - Can and Coil Coating Operations,
 - 1126 - Magnet Wire Coating Operations,
 - 1128 - Paper, Fabric, and Film Coating Operations,
 - 1130 - Graphic Arts,
 - 1136 - Wood Products Coatings,
 - 1145 - Plastic, Rubber, and Glass Coatings and Adhesives,
 - 1151 - Motor Vehicle and Mobile Equipment Non-Assembly Line Coating Operations,
 - 1164 - Semiconductor Manufacturing,
 - 1168 - Control of Volatile Organic Compound Emissions from Adhesive Applications.

(b) **Definitions**

- (1) **EXEMPT COMPOUNDS** are any of the following compounds:
 - (A) **Group I**
 - trifluoromethane (HFC-23)
 - chlorodifluoromethane (HCFC-22)
 - dichlorotrifluoroethane (HCFC-123)
 - 2-chloro-1,1,1,2-tetrafluoroethane (HCFC-124)
 - pentafluoroethane (HFC-125)
 - 1,1,2,2-tetrafluoroethane (HFC-134)
 - tetrafluoroethane (HFC-134a)
 - dichlorofluoroethane (HCFC-141b)
 - chlorodifluoroethane (HCFC-142b)
 - 1,1,1-trifluoroethane (HFC-143a)
 - 1,1-difluoroethane (HFC-152a)

cyclic, branched, or linear, completely fluorinated alkanes
cyclic, branched, or linear, completely fluorinated ethers with no
unsaturations
cyclic, branched, or linear, completely fluorinated tertiary amines with no
unsaturations
sulfur-containing perfluorocarbons with no unsaturations and with sulfur
bonds only to carbon and fluorine

- (B) Group II
methylene chloride
1,1,1 trichloroethane (methyl chloroform)
trichlorotrifluoroethane (CFC-113)
dichlorodifluoromethane (CFC-12)
trichlorofluoromethane (CFC-11)
dichlorotetrafluoroethane (CFC-114)
chloropentafluoroethane (CFC-115)

Use of Group II compounds or carbon tetrachloride may be restricted in the future because they are either toxic, or potentially toxic, or upper-atmosphere ozone depleters, or cause other environmental impacts. Specifically, the District Board has established a policy to phase out chlorofluorocarbons (CFC) on or before 1997.

- (2) Graphic Arts Materials - any inks, coatings, adhesives, fountain solutions, thinners retarders, or cleaning solutions used in printing or related coating or laminating processes.
- (3) Low Solids Adhesive, Adhesive Primer, or Stain is one which has less than onepound of solids per gallon of material.
- (4) Permit Unit - any article, machine, equipment, or other contrivance, or combination thereof, which may cause the issuance or control the issuance of air contaminants, and which:
- (A) requires a written permit pursuant to the provisions of Rules 201 and/or 203, or
- (B) is in operation pursuant to the provisions of Rule 219.
- (5) Stationary Source - any permit unit or grouping of permit units or other air contaminant-emitting activities which are located on one or more contiguous properties within the District, in actual physical contact or separated solely by a public roadway or other public right-of-way, and are owned or operated by the same person (or by persons under common control). Such above-described groupings, if non-contiguous, but connected only by land carrying a pipeline, shall not be considered one stationary source.
- (6) Volatile Organic Compound (VOC) is any volatile compound which contains the element carbon, excluding methane, carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, ammonium carbonate, and exempt compounds

(c) **Requirements**

- (1) An owner or operator of a stationary source using adhesives, coatings, solvents, and/or graphic arts materials and subject to this rule shall maintain daily records of operations for the most recent two (2) year period. The records shall be retained on the premises of the affected operation for a period of not less than two (2) years. Said records shall be made available to the District upon request. The records shall include, but not be limited to, the following:
 - (A) each applicable District rule number pertinent to the operation for which records are being maintained;
 - (B) a list of the permit units involved in the operation(s) using adhesives, coatings, solvents, and/or graphic arts materials;
 - (C) the method of application and substrate type;
 - (D) the amount and type of adhesive, coating (including catalyst and reducer), solvent, and/or graphic arts material used in each permit unit or dispensing station (when permitted equipment is not involved), including exempt compounds (use of amounts of one pint per week or less may be recorded in an alternative manner);
 - (E) the VOC content in each adhesive, coating (including catalyst and reducer), solvent, and/or graphic arts material;
 - (F) the amount of diluent, surface preparation, clean-up, or wash-up solvent (including exempt compounds) used and the VOC content of each (use of amounts of one pint per week or less may be recorded in an alternative manner);
 - (G) where applicable, the vapor pressure of solvents used as surface cleaners; and
 - (H) oven temperature (for coating operations).
- (2) VOC content shall either be calculated using a percent solids basis (less water and exempt solvents) for adhesives, coatings, and inks; or testing shall be done using EPA Reference Method 24 (Determination of Volatile Matter Content, Water Content, Density Volume Solids, and Weight Solids of Surface Coatings, Code of Federal Regulations Title 40, Part 60, Appendix A, 7/1/85 edition). Analysis done according to EPA Method 24 shall utilize Procedure B of ASTM Method D-2369, referenced within EPA Method 24. The exempt solvent content shall be determined using SCAQMD Test Methods 302 and 303 (SCAQMD "Laboratory Methods of Analysis for Enforcement Samples" manual). Alternatively, the VOC content may be determined using SCAQMD Test Methods 302, 303, and 304. The test method shall be documented. The VOC content may be supplied by a Material Safety Data Sheet (MSDS) or data sheet provided the test methods described above are used and specified on the MSDS or data sheet.
- (3) VOC content and density of rotogravure publication inks shall be determined by EPA Reference Method 24A (Determination of Volatile Matter Content and Density of Printing Inks and Related Coatings, Code of Federal Regulations Title 40, Part 60, Appendix A, 7/1/85 edition). The exempt solvent content shall be determined using SCAQMD Test Methods 302 and 303 (SCAQMD "Laboratory Methods of Analysis for Enforcement Samples" manual). Alternatively, the VOC content may be determined using SCAQMD Test Methods 302, 303, and 304.

- (4) VOC content for low solid adhesive, adhesive primer, or stain shall be calculated by the method used to calculate the "Grams of VOC per Liter of Material" as specified in Rules 1136 and 1168.

The following classes of compounds: cyclic, branched, or linear, completely fluorinated alkanes; cyclic, branched, or linear, completely fluorinated ethers with no unsaturations; cyclic, branched, or linear, completely fluorinated tertiary amines with no unsaturations; and sulfur-containing perfluorocarbons with no unsaturations and with sulfur bonds only to carbon and fluorine, will be analyzed as exempt compounds, only at such time as manufacturers specify which individual compounds are used in the coating formulations and identify the test methods, which, prior to such analysis, have been approved by the USEPA and the SCAQMD, that can be used to quantify the amounts of each exempt compound.

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